

Appendix Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: Bluetooth Mechanical Keyboard

Trade Mark: Keychron

Test Model: K9 Pro

FCC ID: 2ASF4-K9PRO

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

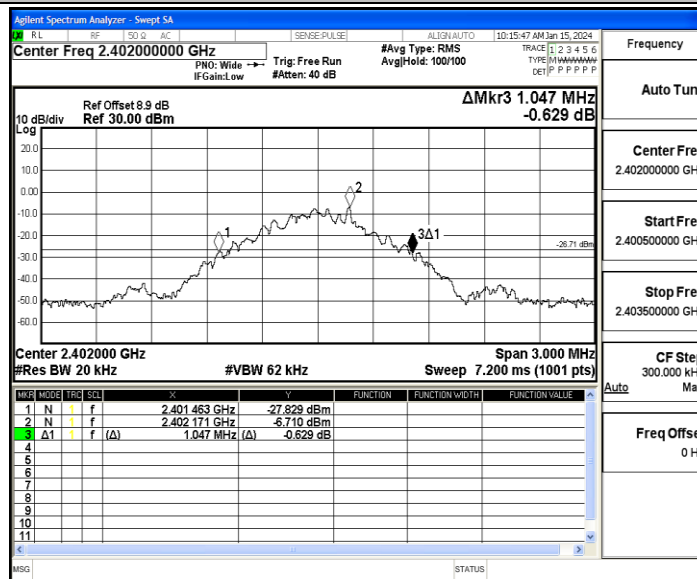
Appendix A: 20dB Emission Bandwidth

Test Result

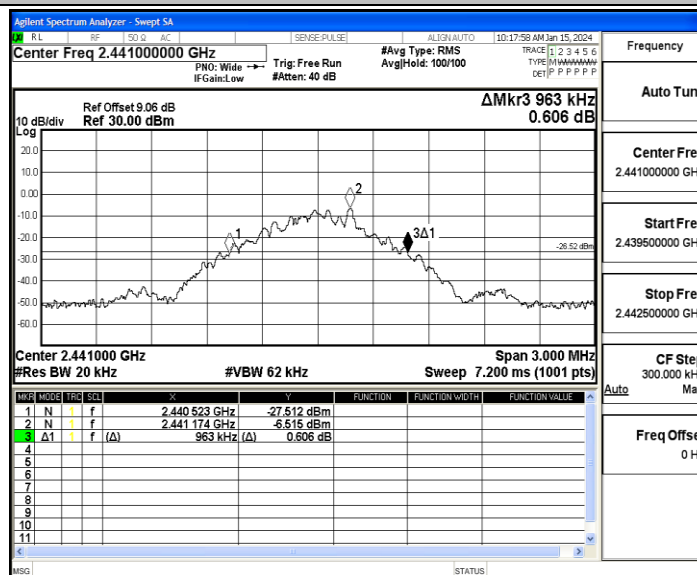
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.047	2401.463	2402.510	---	---
		2441	0.963	2440.523	2441.486	---	---
		2480	0.867	2479.541	2480.408	---	---

Test Graphs

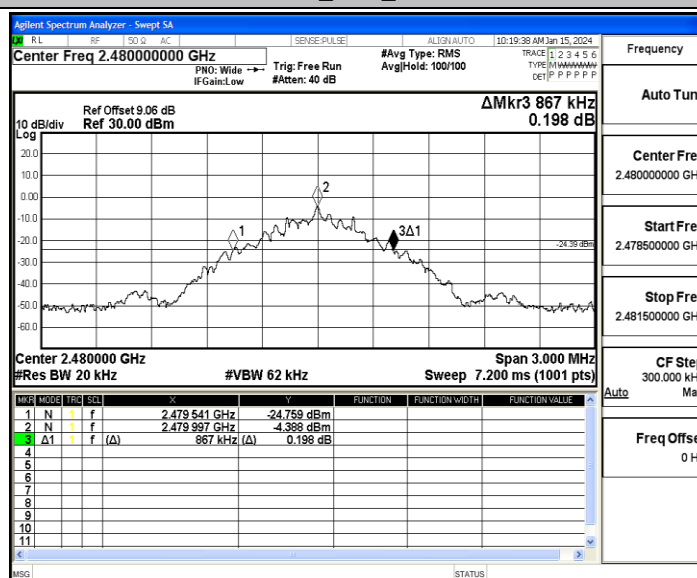
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



Appendix B: Occupied Channel Bandwidth

Test Result

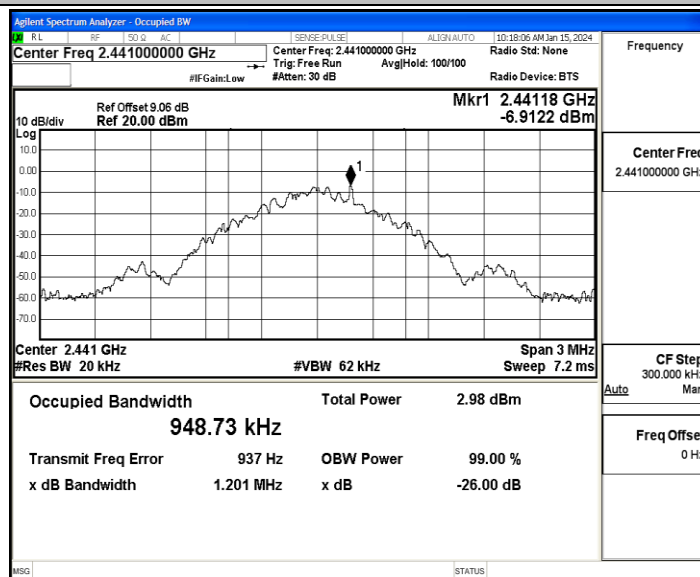
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.92003	2401.5394	2402.4594	---	---
		2441	0.94873	2440.5266	2441.4753	---	---
		2480	0.91506	2479.5479	2480.4630	---	---

Test Graphs

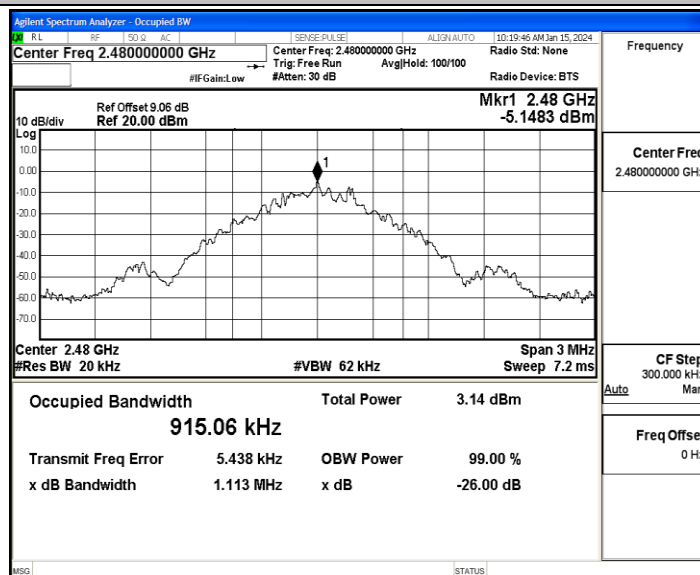
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



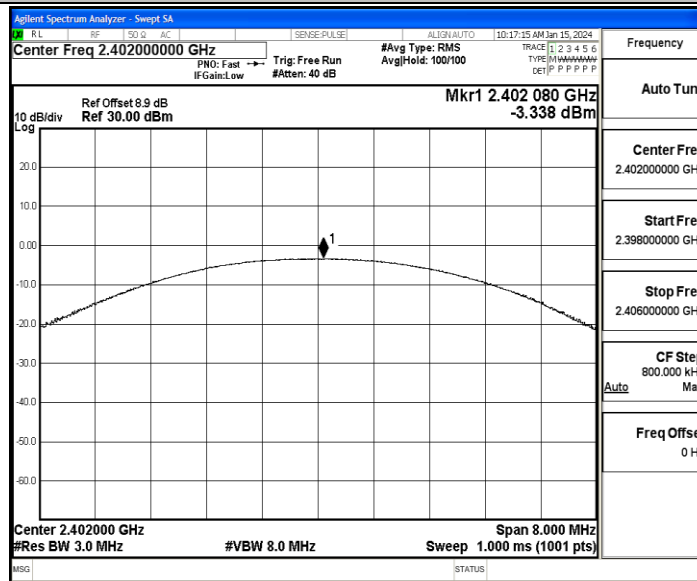
Appendix C: Maximum Peak conducted output power

Test Result

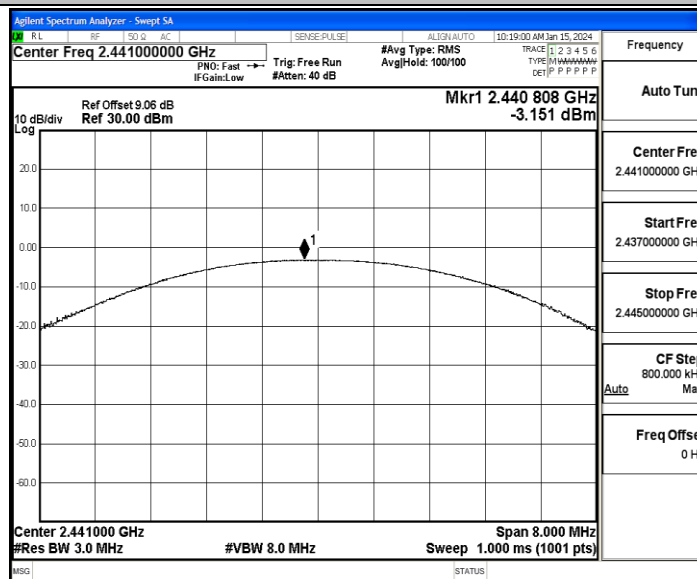
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-3.34	≤ 20.97	PASS
		2441	-3.15	≤ 20.97	PASS
		2480	-3.46	≤ 20.97	PASS

Test Graphs

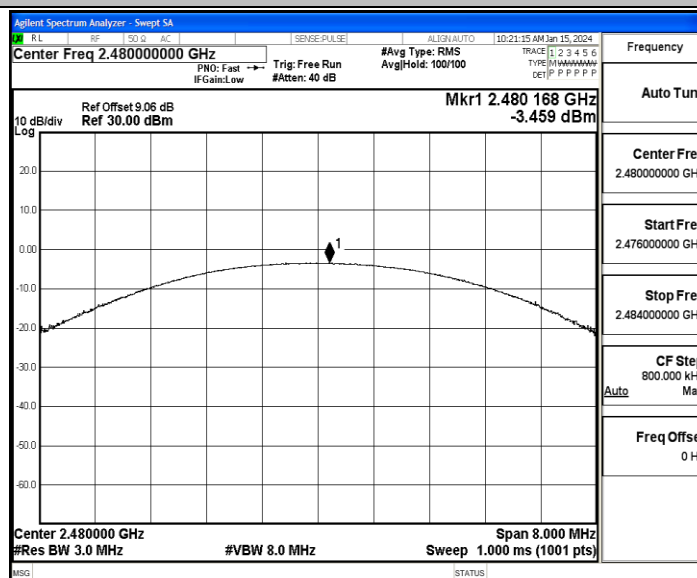
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480

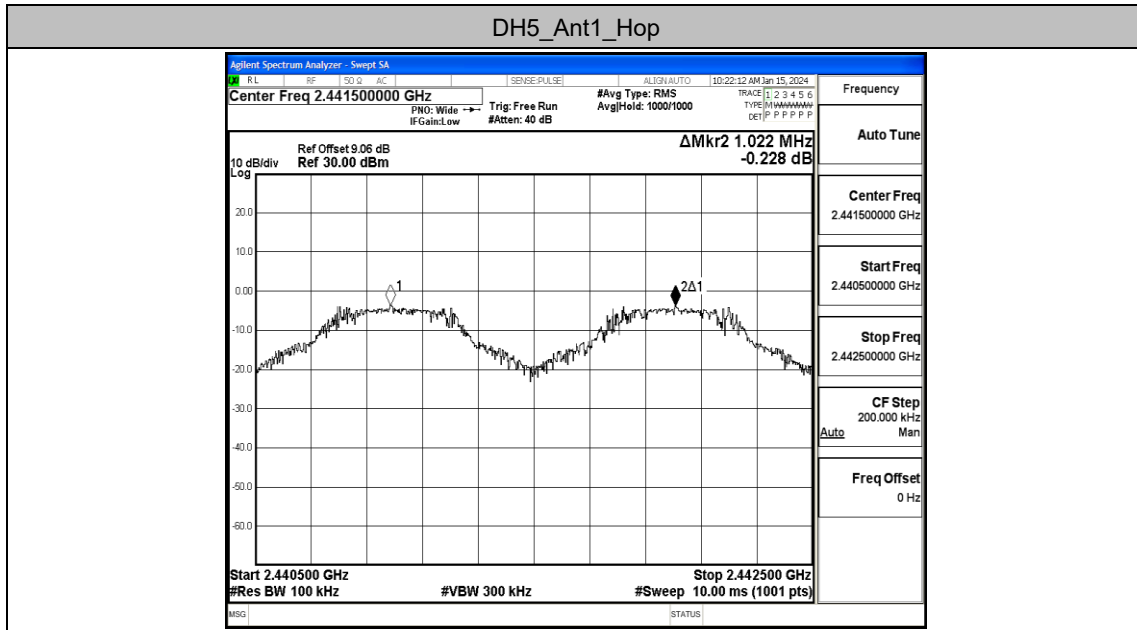


Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.022	≥ 0.698	PASS

Test Graphs

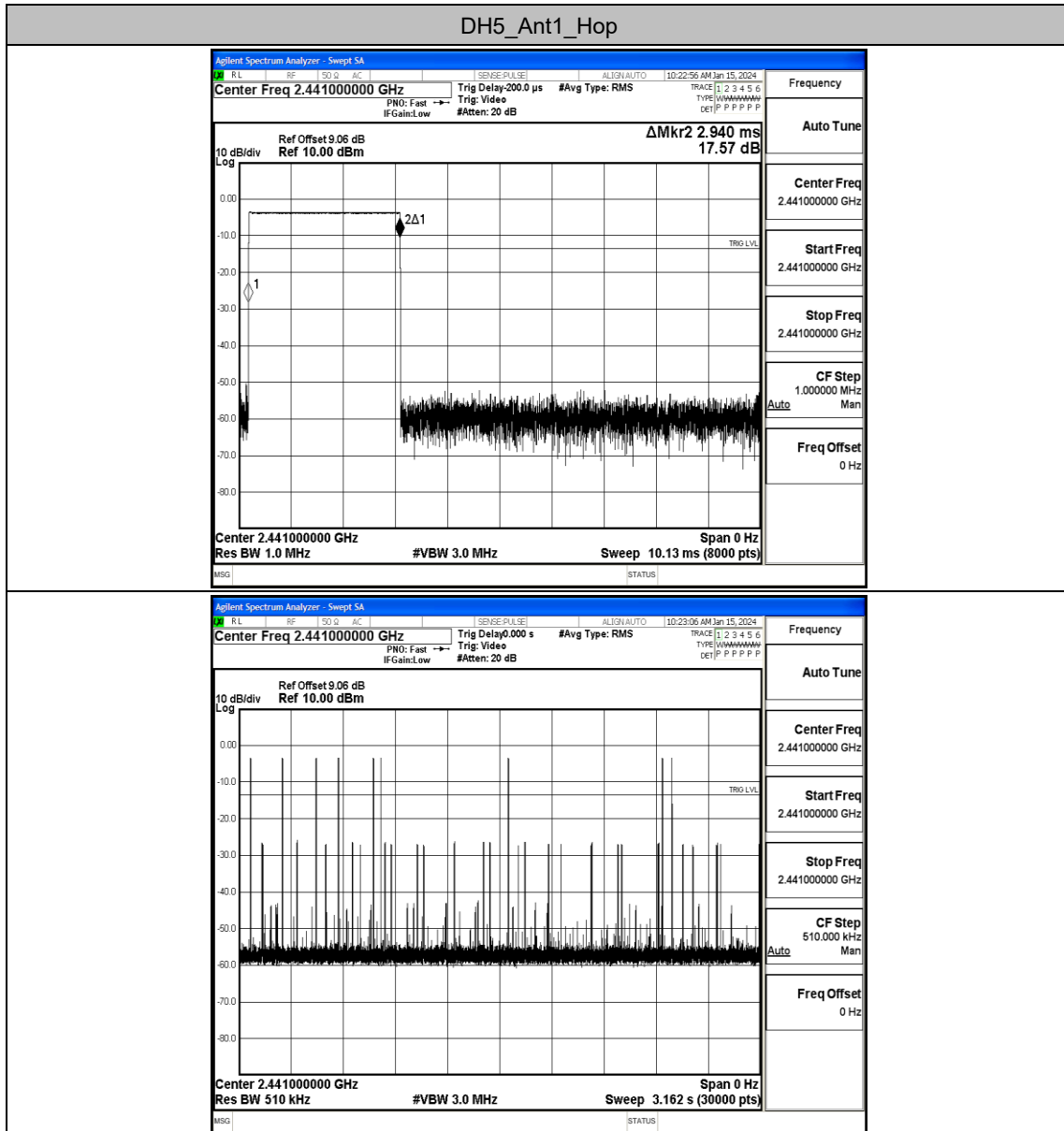


Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.940	100	0.294	≤0.4	PASS

Test Graphs

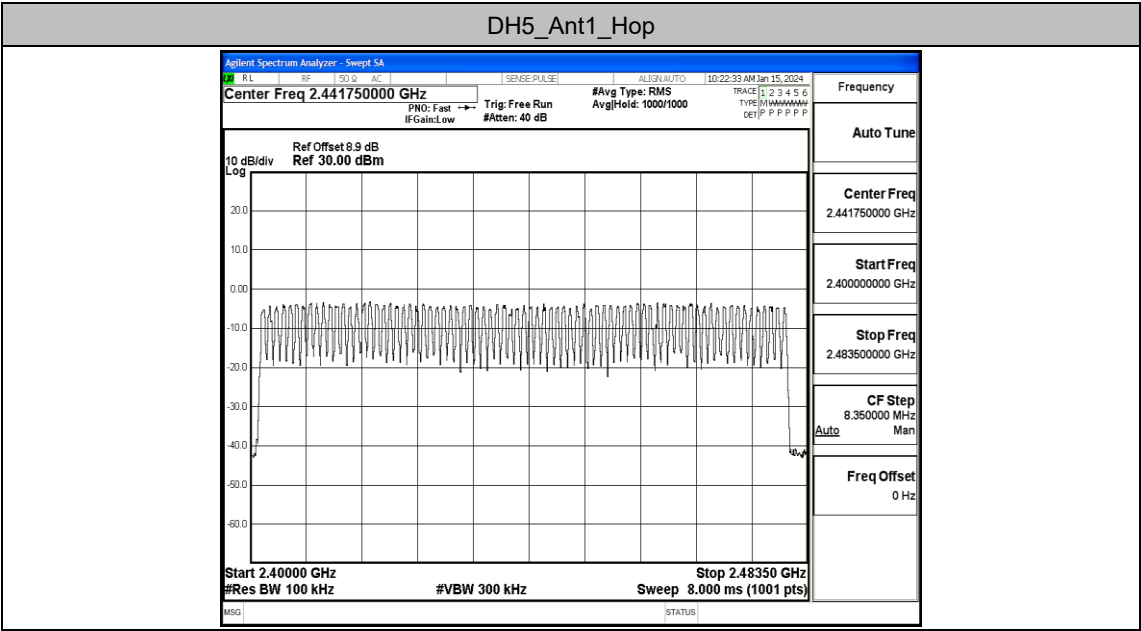


Appendix F: Number of hopping channels

Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS

Test Graphs



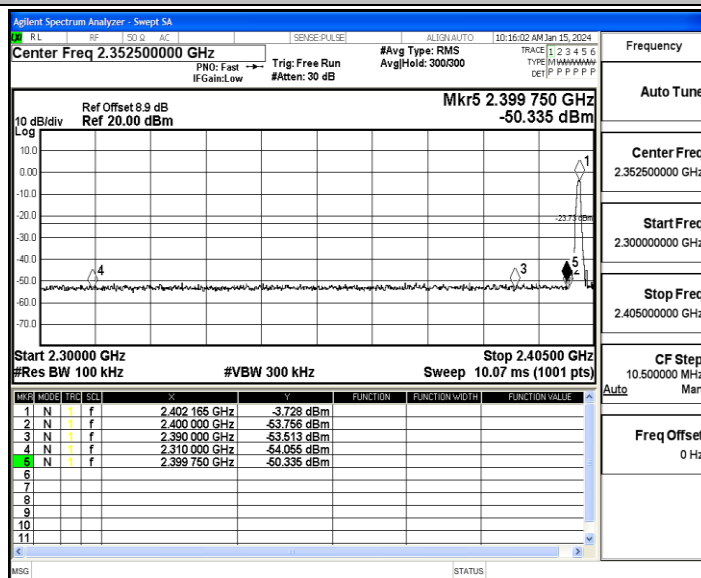
Appendix G: Band edge measurements

Test Result

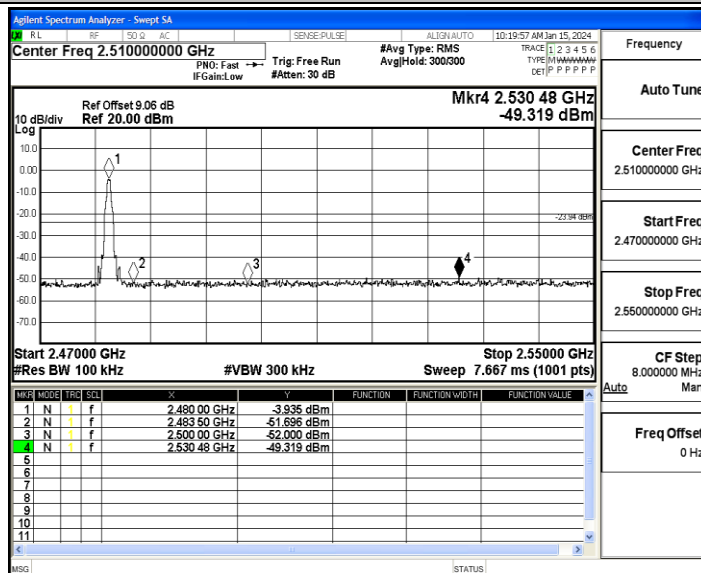
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.73	-50.34	≤ -23.73	PASS
		High	2480	-3.94	-49.32	≤ -23.94	PASS
		Low	Hop_2402	-4.14	-49.68	≤ -24.14	PASS
		High	Hop_2480	-4.07	-49.43	≤ -24.07	PASS

Test Graphs

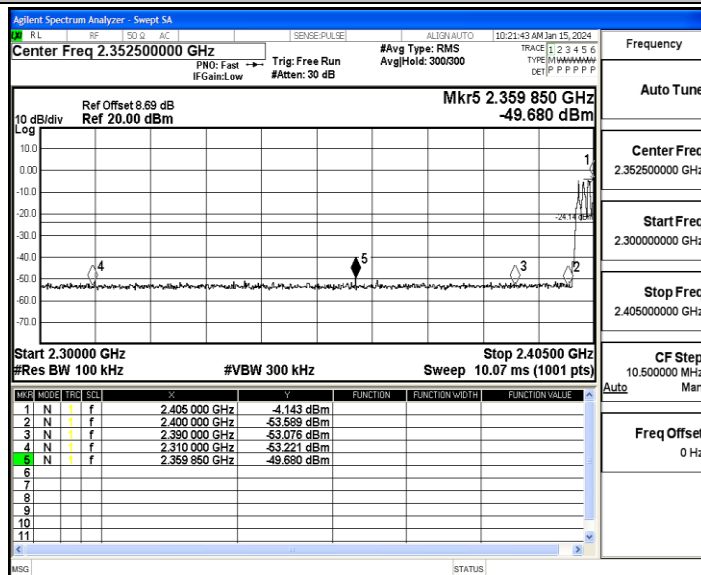
DH5_Ant1_Low_2402



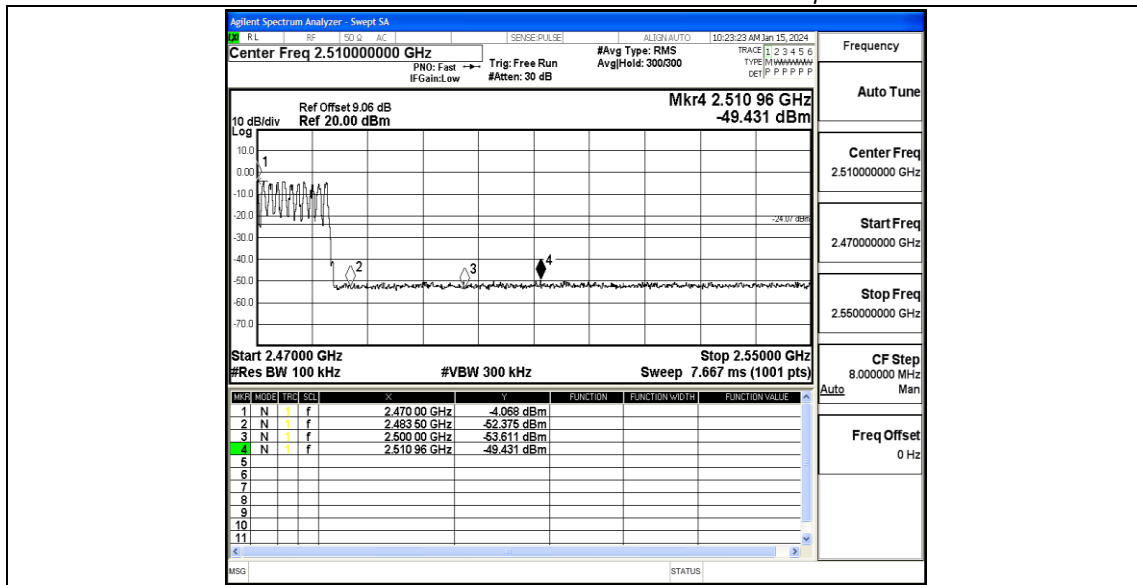
DH5_Ant1_High_2480



DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480



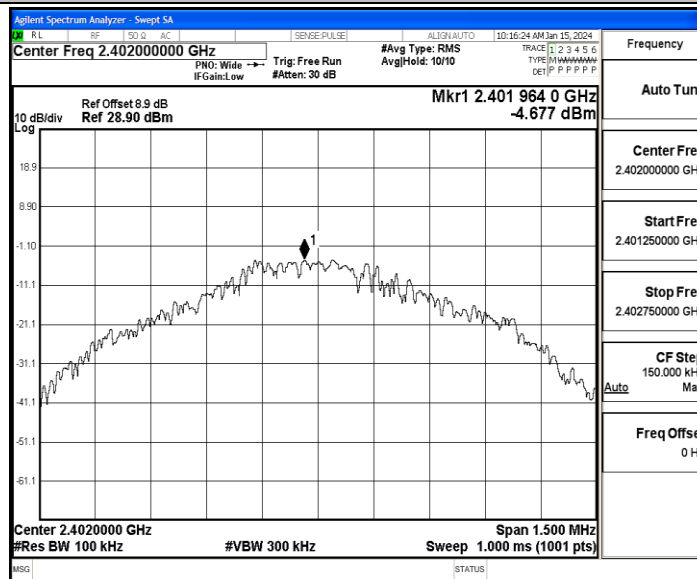
Appendix H: Conducted Spurious Emission

Test Result

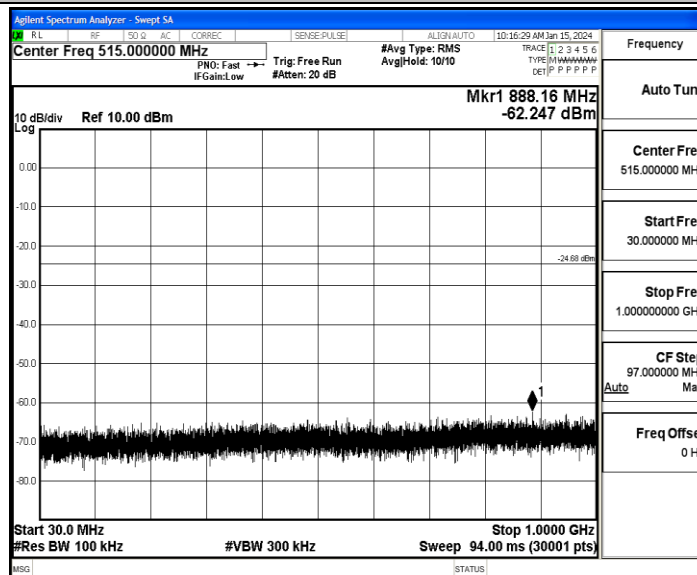
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-4.68	-4.68	---	PASS
			30~1000	-4.68	-62.25	≤-24.68	PASS
			1000~26500	-4.68	-50.22	≤-24.68	PASS
		2441	Reference	-4.61	-4.61	---	PASS
			30~1000	-4.61	-62.23	≤-24.61	PASS
			1000~26500	-4.61	-50.75	≤-24.61	PASS
		2480	Reference	-4.63	-4.63	---	PASS
			30~1000	-4.63	-62.43	≤-24.63	PASS
			1000~26500	-4.63	-49.95	≤-24.63	PASS

Test Graphs

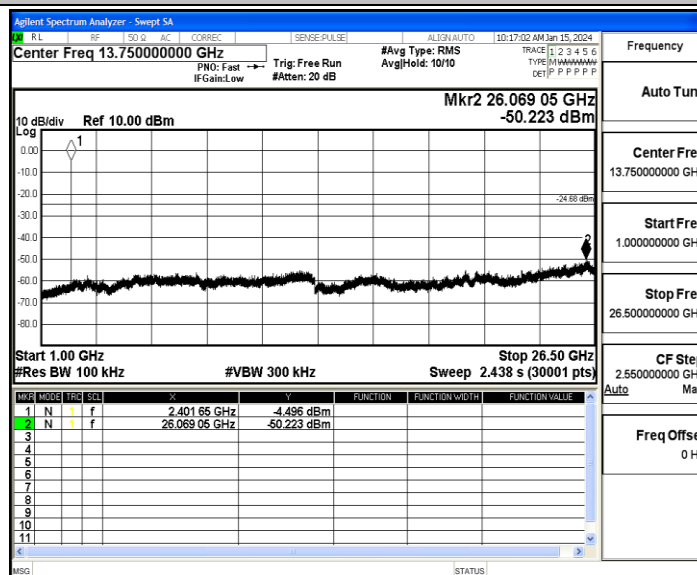
DH5_Ant1_2402_0~Reference



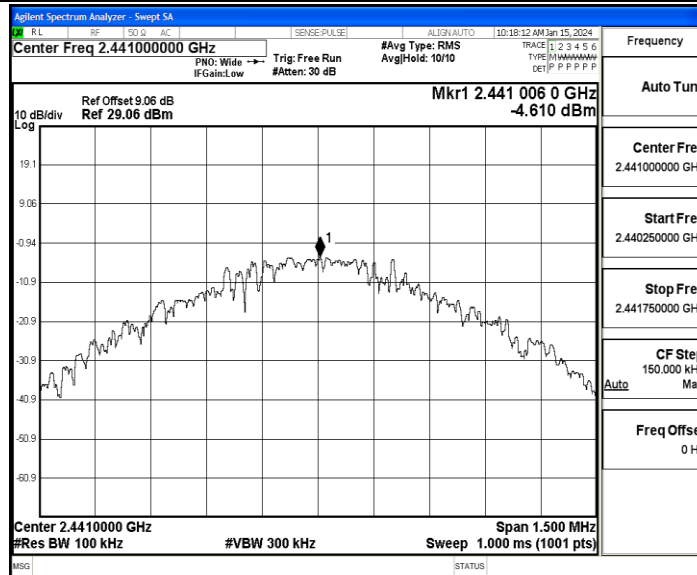
DH5_Ant1_2402_30~1000



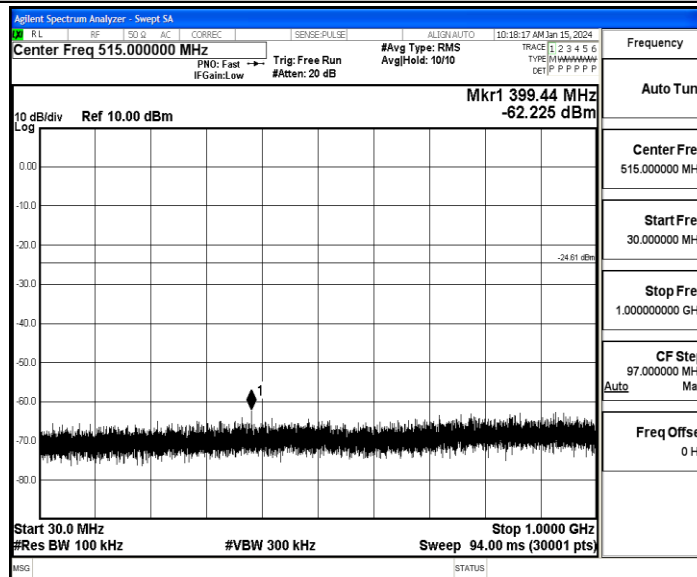
DH5_Ant1_2402_1000~26500



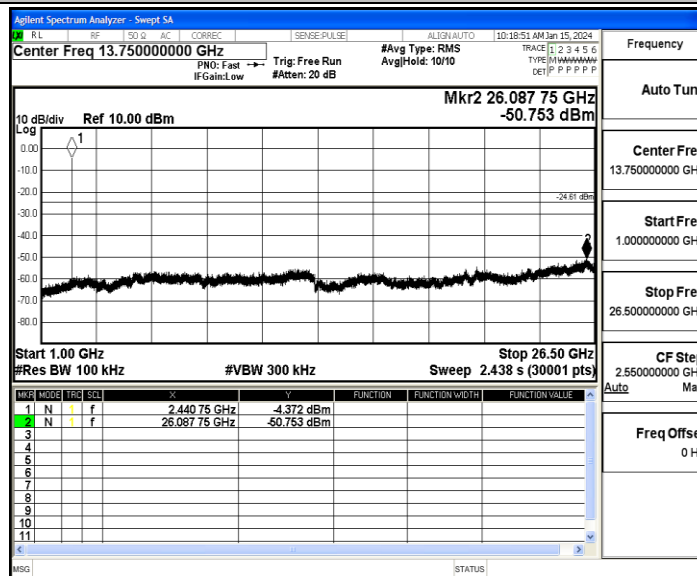
DH5_Ant1_2441_0~Reference



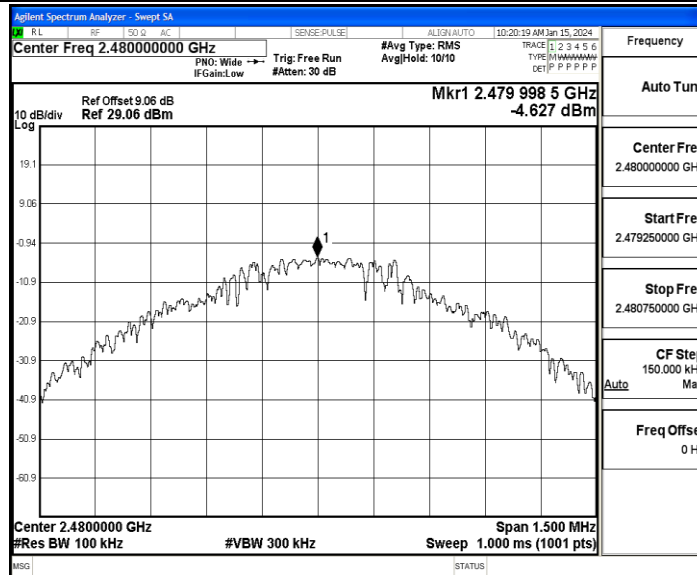
DH5_Ant1_2441_30~1000



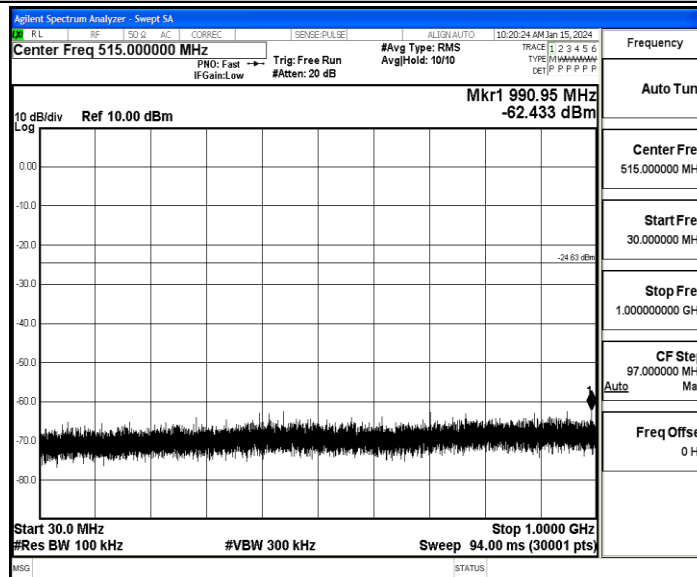
DH5_Ant1_2441_1000~26500



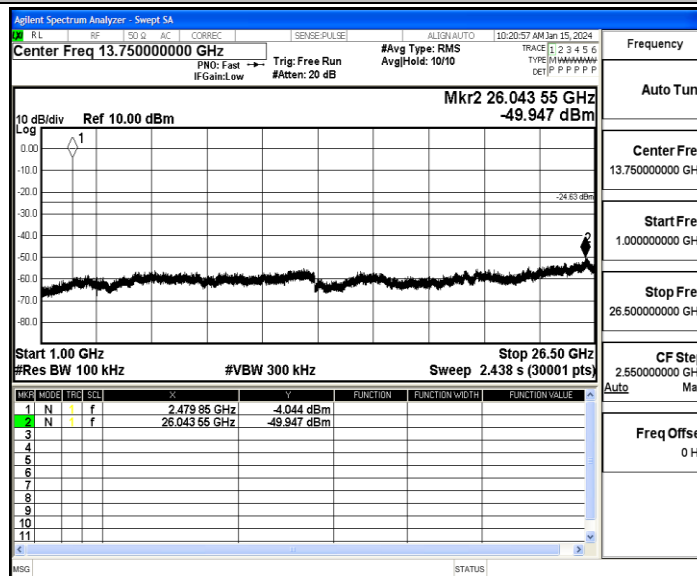
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



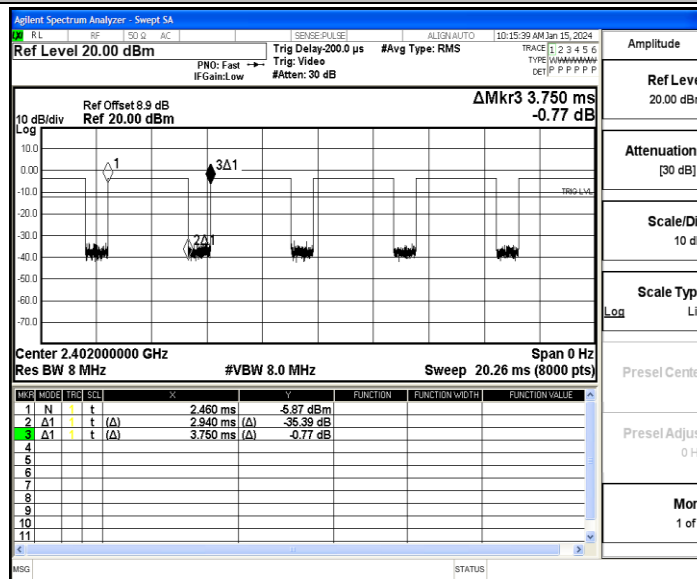
Appendix I: Duty Cycle

Test Result

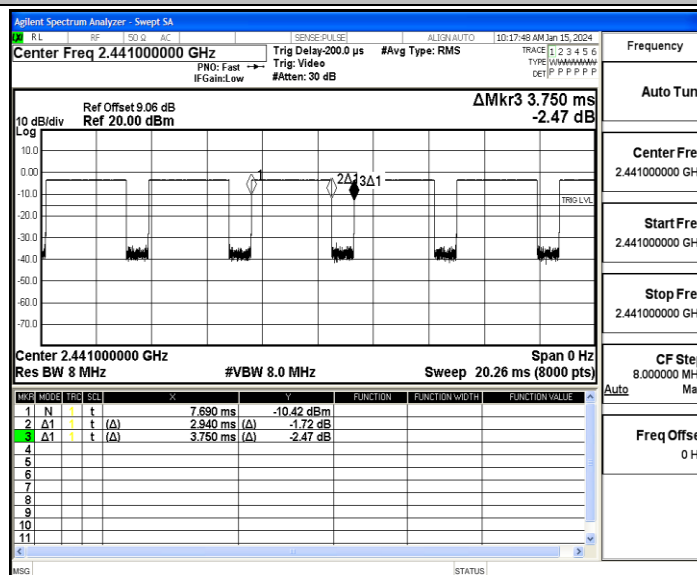
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
DH5	Ant1	2402	2.94	3.75	78.40	0.34
		2441	2.94	3.75	78.40	0.34
		2480	2.94	3.75	78.40	0.34

Test Graphs

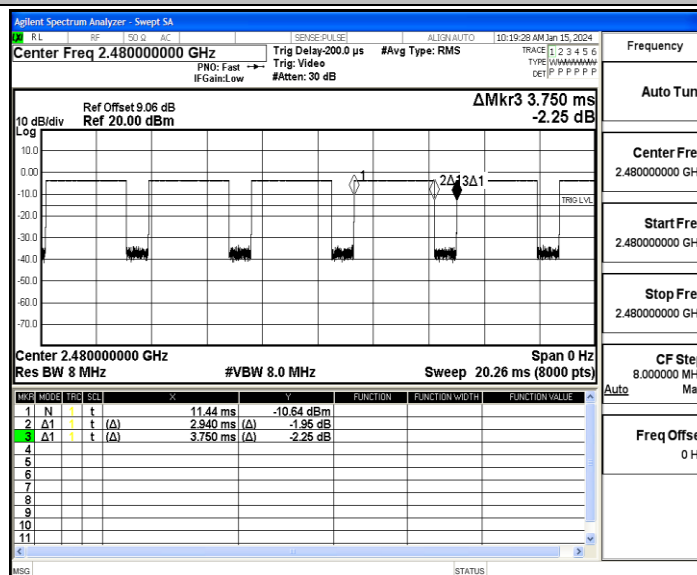
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



Appendix J: Emissions in Restricted Bands

Test Result

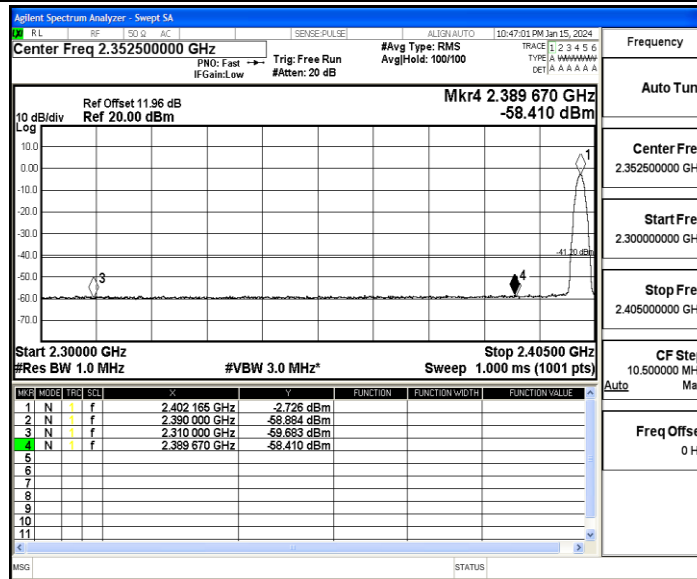
TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-59.68	≤-41.20	PASS
				AV	2389.670	-58.41	≤-41.20	PASS
				AV	2390.000	-58.88	≤-41.20	PASS
				Peak	2310.000	-58.34	≤-21.20	PASS
				Peak	2385.260	-56.73	≤-21.20	PASS
				Peak	2390.000	-57.91	≤-21.20	PASS
		High	2480	AV	2483.500	-57.76	≤-41.20	PASS
				AV	2489.760	-57.73	≤-41.20	PASS
				AV	2500.000	-58.78	≤-41.20	PASS
				Peak	2483.500	-56.1	≤-21.20	PASS
				Peak	2497.360	-55.87	≤-21.20	PASS
				Peak	2500.000	-56.96	≤-21.20	PASS

Note:

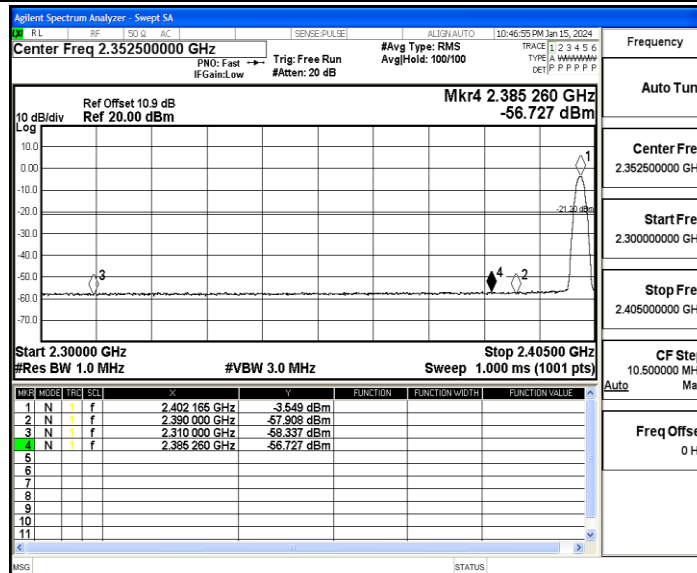
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

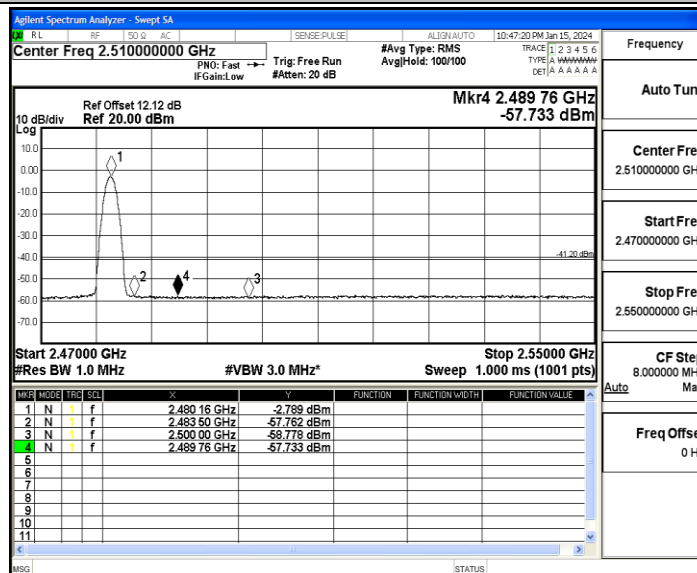
DH5_Ant1_Low_2402_AV



DH5_Ant1_Low_2402_Peak



DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

